

**Access to Microfinance & Improved Implementation of Policy Reform
(AMIR Program)**

Funded By U.S. Agency for International Development

E -Banking in Jordan

Final Report

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This report was prepared by Paul F. P. Coenen, President of Electronic Strategy Associates, in collaboration with Chemonics International Inc., prime contractor to the U.S. Agency for International Development for the AMIR Program in Jordan.

Management Overview

The AMIR program plans to update the Reach Initiative with specific recommendations. That update, the REACH 2.0 initiative, for Jordan's software and IT services industry, has taken E-banking as one of its twelve foci in updating the original Reach Initiative from August of 1999.

To achieve its goals, AMIR contacted a group of experts to discuss the twelve topics, meet with team members, make presentations for interested stakeholders and prepare reports reflecting the regulatory framework changes needed for Reach 2.0 to succeed.

Key results of this portion of the Reach 2.0 update included:

- Development of a framework to understand E-banking and other E- services;
- The creation of understanding of the roles of payments in the E-commerce/E-banking world;
- The recruitment of bankers and the Central Bank of Jordan to support the Reach 2.0 Initiative;
- The development of a list of legal framework issues that will either have to be modified or created to enable E-banking in Jordan; and
- The setting of two major priorities for legal framework issues: Banking statutes and the Law of Evidence.

Following the final E-banking Regulatory Framework Strengthening team meeting, times were set for the legal firm, International Business Legal Associates, to prepare and present their legal issues framework.

E-Banking in Jordan

The topic of E-banking has become a popular one during the last few years. Trade magazines and business articles are filled with “E” and “.com” information and estimates of the rapid growth of internet purchases, the estimates are usually stated in billions of dollars by some near future year. Banks are realizing that they must offer electronic based services, either as a provider or as a payment processor to others.

The REACH 2.0 initiative for Jordan’s software and IT services industry has taken E-banking as one of its twelve foci in updating the original Reach Initiative from August of 1999.

Electronic Strategy Associates (ESA) was retained by Chemonics International Inc. to support the Reach 2.0 effort, specifically the AMIR (Access to Microfinance and Improved Implementation of Policy Reform in Jordan) program. To fulfill the contract, ESA had to perform five tasks. Those tasks were:

- Prepare by reading/viewing certain materials;
- Attend a “pre-shareholder meeting”;
- Present an E-banking review and discussion;
- Attend a “post-shareholder meeting”; and
- Prepare a recommendations report.

From these tasks, ESA was to provide two deliverables. Those deliverable were: Provide the presentation and create a report of key findings from the meetings, noting specifically issues and concerns from the meetings and provide recommendations for facilitating E-banking in Jordan.

The preparation documents/material included:

- The Reach Initiative Document;
- The Reach web site; and
- Jordan Vision 20/20 Document.

In addition, several other documents were read while in Jordan. Those documents included:

- Brochures provided by the Jordan Kuwait Bank;
- Reach document Appendix;
- Relevant copies of the Jordan Times;
- Jordan Banking Regulations; and
- Additions to the Jordan Vision 20/20 Document

A pre-meeting was held with team members to explore the topics and to provide steering for the presentation on E-banking.

The actual E-banking presentation was made on July 25th. There were 54 attendees from a variety of affected industries and the presentation lasted roughly 2.5 hours. The slides and a brief summary of questions appear as Appendix One. The presentation received favorable comments and was covered by the Jordan Times and Jordanian TV.

Critical to the understanding of E- services was the definition of the four layers of activity that make up the construction, marketing and use of any E- service. Those four layers were:

- System Service – Hardware and software that make up the operating platform;
- Specialized Business Logic – The part of the application logic directly relevant to a certain business;
- Administrative - Marketing, pricing, fulfillment and personalization of the service; and
- Payment Processing – How the user pays for the product/service.

Among these four layers, there are also three overlays that are critical to success. Those three layers are:

- Security of transactions;
- Privacy issues for consumers; and
- Integrity of messages and data.

The examination of this model allowed viewers to see the close fit between E-banking and Payment Processing, the historical role of the banks. While E-banking must be enabled, its role in E-commerce or E-Government cannot be minimized. With this link in mind, the ability to accept a variety of payment types is necessary.

A post-meeting was held to sharpen the focus for the final report and to determine a frame work for the legal update/creation needed.

While all of the E-topics are exploding (E-commerce, E-government, E-brokerage, etc.), three factors should be remembered:

- End users may be limited by computer/modem availability;
- The quality of communications affects users access choices; and
- The importance of pricing and marketing cannot be overlooked.

In the initial discussions with Reach 2.0 team leaders and steering group, it became obvious that there was little agreement of what is meant by E-banking. When discussions with bankers were held, the understanding was also limited.

The easiest way to define historical E-banking is with the very circular statement: E-banking is delivering banking services electronically. Typically, the internet is involved, but the basic requirements can be filled with Personal Computers, hard wire or wireless phones; some have even said Automated Teller Machines and Point-of-Sale should qualify because they are electronic devices.

If there is an agreement that electronic means must be involved in the delivery, E-banking services vary, but typically include some or all of the following:

- Checking /E-checking
- Credit Card Issuance and Payment
- Bill Payment
- Overdraft Protection
- Certificates of Deposit or savings
- Brokerage
- Insurance sales
- Installment loans
- Home equity loans
- Mortgages
- Administrative requests such as statements or checks
- Leases

When a business customer is involved, there are often other services provided. Those services include:

- Letters of credit;
- Bankers Acceptances;
- Wire transfers;
- SWIFT transactions;
- Foreign Exchange;
- Open to buy;
- Electronic payroll applications;
- Account summaries and positions;
- Investment opportunities.

During the early meetings, there seems to be concerns between the bankers and E-commerce suppliers. Sensing a potential communications disconnect between these two critical groups, Mr. Coenen met informally with two groups of interested parties, including the Central Bank of Jordan and a group of bankers. The bankers agreed to gather for a casual lunch and there was no special reason for their selection beyond availability.

In all situations, Mr. Coenen assured the meeting attendees that competitive information did not have to be released or shared. He gave assurances that no disclosed information would be shared with others.

Present at the Central Bank of Jordan meeting were:

- Dr. Mustafa Yaseen, Project Manager for the National Payment Stem;
- Jamal I. Q. Issa, Manager of the EDP Department;
- Bassam S. Farmawl, Head of the National Payments System Committee; and
- Abdul Raheem Kailani, Open Market Operations Department/Payment Systems Committee.

Present at the bankers meeting were:

- Zafer Y. Abdel-Latif, Jordan Gulf Bank, Manager, Information Systems Department;
- Mohammad Anwar Hamden, Bank of Jordan, Assistant General Manager;
- Dr. Maher A. Waked, Industrial Development Bank, General Manager;
- Omar R. Jabari, Jordan Islamic Bank, Deputy Computer Department Manager;
- Nabil A. Wasbeh, Jordan National Bank, General Manager – Jordan; and
- Moh'd Yaser Al-Asmar, General Manager, Jordan Kuwait Bank.

In addition to the meeting, the Jordan Kuwait Bank graciously provided access to its operations and computer department personnel. Personnel provided included:

- Majed F. Bujak, Assistant General Manager, Operations
- Suhail Turki, Computer Department and Web Manager

The meetings produced several potentially positive outcomes:

- The Central Bank of Jordan expressed interest in Reach 2.0
- The banks became aware that the Central Bank could be involved, but was not currently;
- There were several outstanding issue for providing E-banking in Jordan.

Present at the legal discussion were:

- Dr. Salah-Eddin M. Al-Bashir;
- Yassera Asem Ghosheh; and
- Wael M. Wahbeh

To prepare the final framework for expansion/creation of laws relevant to E-banking, a listing of issues was created with the assistance of the legal team and the review of the total team. The specific issues follow:

- The definition of a bank, including the roles of banks and access to clearing by the Central Bank of Jordan. This process would include the capitalization of banks, their management, their functions and their needs for security and privacy audits.
- The entire Central Bank of Jordan access question brings with it issues such as who should get direct access, under what conditions, using technological guidelines and at what costs? Since many of those with current access neither have around the clock availability, nor is the Central Bank system available at all times, rules for availability of services and what to do to provide continuous availability to account services should be drawn up. These rules should include resubmission and reasonable timeframes that must be met by those offering E-banking services.
- The role of the banks in providing E-services as versus allowing the creation of new entities that provide E-payment and directly access the Central Bank of Jordan's clearing facilities. These entities would be much like financial service companies in that they potentially handle payments and the consumer should be able to rely on their services.
- Any currency issues such as money laundering.
- Any trade payment or commercial code issues.
- Any tax and sales issues created by being a vendor outside the Kingdom.
- The Laws of Evidence especially related to electronic items and use of electronic signatures as proofs of identification such as digital signatures and the creation of a "trusted third party."
- The requirements for consumer disclosure relating to E-banking and especially for the use of recurring payments. Should disclosures would include: How to start the service; how to end it; what is consider an adequate provision of notices; and what to do if services are not stopped, adequate care is not taken by either party or the accounts are compromised.
- The current regulations for checking and how they must be revised if E-checks are to allowed. Again, this examination should include consumer authorization and requirements for current adequate balances or overdrafts. The final aspects of E-checks should well be the setting of resubmission rules.
- Consumer privacy rules should be amended to include the ability for the consumer to easily "opt out" of data sharing or saving, the ability for the consumer of easily see and review the collected data and fix any errors. Privacy is an issue if Jordan plans to be part of the European Union, for Example. This privacy provision may well become part of a corporation's audit.
- Using the services alluded to earlier as typical E-banking functions, each one should be examined for its role in E-banking and necessary changes made.

In the review of these elements, several documents would be available for use as a drafting tools. While the US is not the only Country who provides E-banking, several of the documents provide an American outlook.

There is concern that the consumer is too protected under US statute, beyond what is reasonable and prudent, but Regulation E, the consumer protection act, is a good place to start. The full set of drafting documents follow:

- The US Regulation E;
- Current offerings from Jordanian banks offering E-banking;
- The Jordanian commercial code;
- The Jordanian tax codes;
- The definition of a bank from current Jordanian Banking Regulations;
- Digital Signature laws from any number of countries, including the recent US Act;
- E-check and resubmission rules from the American National Automatic Clearing House Association (NACHA). This material is available at the NACHA.Org web site. NACHA material can also be used regarding recurring payments and access to central clearing;
- The 1997 Security Document for Jordanian electronic item handling;
- Secure trade payments documentation from Bolero and SWIFT;
- The International Standards Organization (ISO) for financial message handling (ISO 8583, especially); and
- The American National Standards Institute for standards for ANSI X.12 documentation on Electronic Data Interchange (EDI and EDIFACT).

Appendix One
(E-banking Presentation Slides)

RULE ONE/TWO

NO 3 - LETTER WORDS – ISO, ISP, VPN

NO " THAT'S HOW WE DO IT IN USA "

E - BANKING FOUR LAYERS OF ACTIVITY

- **SYSTEM SERVICE**
- **SPECIALIZED BUSINESS LOGIC**
- **ADMINISTRATIVE - MARKETING /
PERSONALIZATION**
- **PAYMENT PROCESSING**

OVERLAYS OF FOUR LEVELS

- SECURITY
- PRIVACY
- INTEGRITY

EXPANDABLE

BUYERS

SELLERS

MARKET PLACE

SYSTEM SERVICE

- BASIC HARDWARE / SOFTWARE
- COMMUNICATION/LANGUAGE
- ACCESS DEVICES
 - ATM/POS
 - PHONE - WIRE / .WIRELESS
 - PERSONAL COMPUTER
 - INTERNET

- LAWS MAY DIFFER -

SPECIALIZED BUSINESS LOGIC

- **KEYED TO APPLICATION
(ISO 8583 P.A.)
(BILLS FORMAT)**

ADMINISTRATIVE

- **MARKETING**
- **EASE OF USE**
- **PRICING**
- **FULFILLMENT**
- **AUDIT OF SYSTEM**

PAYMENT PROCESSING

- ACCOUNT TRANSFERS
 - ONE BANK TO ANOTHER
 - INTERNAL
 - BANK TO MERCHANT
- CASH
- WIRE / SWIFT
- PHONE BILLS
- E-PURSE
- MICRO-PAYMENTS

PAYMENT PROCESSING

- CREDIT CARD
 - PSEUDO CARDS - NUMBERS
 - TRUSTED 3RD PARTY
 - PERSON TO PERSON
- DEBIT CARDS
- CHECKS / E - CHECK
- ELECTONIC DATA INTERCHANGE
 - INTERNET VERSION

SECURITY / INTEGRITY

- **COMPLETENESS OF MESSAGE**
- **CORRECTNESS OF THE TRANSACTION**
- **"HOLDER IN DUE COURSE" ESTABLISHED**
- **DIGITAL SIGNATURES**
- **DIGITAL CERTIFICATES**
- **ENCRYPTION - DES**

CONSUMER PROTECTION

- **PRIVACY / RESALE**
 - **EU STANDARDS**
 - **DATA MINING / WAREHOUSING**
- **PUBLIC KEY INFRASTRUCTURE**
- **BIOMETRICS**
 - **VOICE PRINTS**
 - **HAND GEOMETRY**
 - **FINGER PRINTS**
 - **OFTEN SMART CARD**

TYPICAL E-BANKING SERVICE

- CHECKING / E-CHECKS
- CREDIT CARD (ISSUE / PAYMENT)
- BILL PAYMENT
- OVER DRAFT PROTECTION
- CDs / SAVING

TYPICAL E-BANKING SERVICE

- **BROKERAGE**
- **INSURANCES**
- **INSTALLMENT LOANS**
- **HOME EQUITY**
- **MORTGAGES**
- **LEASES**

TYPICAL E-BANKING SERVICE

- **LETTER CREDIT / BANKERS
ACCEPTANCE**
- **OPEN TO BUY**
- **WIRES**
- **SWIFT**
- **FOREIGN EXCHANGE**

QUESTIONS # 1

- **ISO STANDARDS WHENEVER POSSIBLE**
- **IF TRANSACTION FAILS, BUT CONSUMER ACTS**
- **IS USER WHO HE / SHE SAYS**
- **IS DATA CORRECT**

QUESTIONS # 2

- CAN CONSUMER OPT OUT
- RELIGIOUS IMPLICATIONS
- ROLE OF BANKS
 - INVOLVEMENT / ROLE
 - MUST SHARE
 - SIZE OF FINANCIAL INSTITUTION
 - GEOGRAPHIC OPERATION
 - DEPOSIT TAKING
 - LOANS

QUESTIONS # 3

- CREDIT CARDS (MOST COMMON)
 - RULES (CHARGE BACKS)
 - INTERCHANGE FEES
 - GOOD IN INTERCHANGE

- AUDITABILITY
 - VAT
 - MONEY LAUNDERING
 - RULES FOR BANKS

- MARKETING
 - CONSUMER WARNINGS
 - NATURE OF SOCIETY

QUESTIONS # 4

- TO SEE AND CORRECT CONSUMER DATA
- INTERNET FRAUD ROUGHLY 12 TIMES HIGHER
- TO KNOW DIGITAL SIGNATURE IS REAL
 - WHAT I HAVE
 - WHAT I KNOW
 - WHAT I AM

QUESTIONS # 5

- CAN I MARKET A HIGHER RATE OF RETURN?
- DEFINITION OF ACCESS DEVICE
 - ATM
 - PHONE / WIRELESS
 - POINT OF SALE
 - PERSONAL COMPUTER

Following the presentation concerning E-banking, a question and answer session was held. The final five slides addressed specific questions and were used as a focus for the discussion.

Specific questions and concerns were:

- What is the size of internet fraud on credit cards?
- What is the best way to handle micropayments?
- Can Bankers Blanket Bonds be used for internet fraud?
- Are there specific religious or cultural issues facing E-banking?
- What are the advantages of using International Standards Organization (ISO) standards?
- What will be the roles of community banks in E-banking?
- How can digital signatures work and what problems do they have?
- What will happen next?

Appendix Two

A Review of Legal Obstacles to E-Banking under the Jordanian Legislation

A Review of Legal Obstacles to E-Banking Under the Jordanian Legislation

The Law	The Provision	Assessment	Comments	
The Central Bank Law		The role of the Central Bank is to license banks and monitor their operations. According to this role the Central bank could take the initiative in performing E-Banking in Jordan,		
	Article 1 Licensed Bank means any bank licensed to carry on business in the kingdom under the provisions of the Banking Law.	From the definition The Central Bank is the only authority that have the power to license a bank since it is the only licensing authority in the Kingdom.		
	Article 4 /I The Objectives of The Central Bank: I. Carrying out any other functions and transactions normally preformed by the central banks, as well as any operations entrusted to it under this law, or any other law, or under any international agreement to which the Government is a party thereto.	It is clear that Central Bank can carry any other function and transaction normally preformed by the central banks. This Central Bank may carry out clearance activities among banks.		
	Article 12/g The Board shall exercise the following powers: g- 1. To approve the licensing of Jordanian Banks, their mergers, the revocation of their			

The Law	The Provision	Assessment	Comments	
	<p>licensing, and opening of their branches inside and outside the Kingdom and in the free zones established in the Kingdom.</p> <p>2- To approve the licensing and the revocation of the licensing of licenses of branches or representative offices of foreign banks in the Kingdom and in the free zones established therein.</p> <p>3-To approve and to revoke the licenses of financial institutions and companies.</p>			
	<p>Article 12 /h</p> <p>To authorize dealing in foreign exchange and to revoke such authorization in accordance with the laws, regulations, and directives applicable in respect.</p>	<p>There is nothing in the provisions of the Foreign Exchange Control Law that restricts dealing with foreign currency in terms of the movement of such from and into the Kingdom.</p>	<p>This would definitely assist in the creation of an e-banking regime in Jordan.</p>	
	<p>Article 14/c</p> <p>The governor shall represent the Central Bank in all of its relations with other parties; and in this capacity he may:</p> <p>Sign contracts which involve financial commitments on the central bank in accordance with the regulations as may be decided by the Board;</p>	<p>The Governor is authorized to sign on behalf of the Central Bank in any agreements that may involve clearances between banks.</p>		

The Law	The Provision	Assessment	Comments	
	Article 23/2 Every employee of the Central Bank must take an oath to protect the secrecy with regard to the functions and operations of the Central Bank, before assuming his duties, and in the terms set in Appendix 2 of this law. This oath shall be taken in the presence of the Governor or the Deputy Governor.	The Central bank Law is the only Law that provides for confidentiality. This provisions only applies to employees of the Central Bank. There is no similar provision in the Banking Law.		
	Article 26 a-Any monetary transaction in the Kingdom shall be effected in the Jordanian Dinar, and any bill, promissory note or document whatever involving a monetary payment or obligation must be expressed in Jordanian Dinar. b. Foreign currencies may be used for the aforesaid purposes only to the extend permitted by the Foreign Exchange Control Law and any other regulations issued hereunder	Under the Foreign Exchange Law there are no restrictions on the movement of foreign currencies from and into the Kingdom. Therefore, in case of implementing e-banking operations, there are no restrictions on transferring foreign currencies outside the Kingdom.		
	Article 33 It is possible for the Central Bank to deal with Foreign currency with foreign banks, institutions, regional and international financial institutions.			
	Article 37 A. The Central bank shall open accounts and accept deposits from Licensed Banks, and shall, upon their request, collect money and other monetary claims due to them and settle on their	Pursuant to this provision, the Central bank may act as a clearance entity for banks in case e-banking is applied.		

The Law	The Provision	Assessment	Comments	
	<p>behalf any claims from them and, generally, act as their banker.</p> <p>B. The central bank shall provide the Licensed Banks with services for interbank clearings and for exchange of credit information relating to their clients and these banks shall participate in such arrangements as the Central Bank may prescribe for these purpose after consultation with them;</p> <p>C. The Central Bank may provide such additional services to Licensed Banks as it may deem fit after consultation with these banks.</p>			
The Banking Law		A new Draft Banking Law has been presented to the Parliament. The new Draft, however, has not been passed yet.		
	<p>Article 2</p> <p>* The licensed Bank means any company licensed to carry business in the Kingdom under the provisions of this Law.</p> <p>* Banking Business means all banking services, particularly the acceptance of funds and other resources of the Bank, totally or partially, for investment permitted under this Law.</p>	The definition is very wide. Banking Business may include e-banking services under this definition.		
	<p>Article 4</p> <p>Any company desirous of carrying on banking business in the Kingdom must submit an application for license to the Central bank prior to engaging in such business.</p>	To establish a bank in Jordan, a company must acquire the Central Bank's prior approval. This requires the company to apply to the Central bank for licensing. There is no definition of an "application" and		

The Law	The Provision	Assessment	Comments	
	<p>Any group of persons desirous of forming a company to carry on banking business in the Kingdom must prior to the registration of such company in accordance with the companies law apply to the Central bank in writing and if the Central bank approves the application and the company is duly registered the license shall then be issued accordingly.</p> <p>When considering an application for a license the Central bank may require such information as may be necessary to satisfy itself that the capital of the company its expected earnings its management and the need of the country for its services do justify the issue of the required license.</p>	<p>whether such an application can be electronic.</p> <p>Prior to registering any company as a “bank” at the MIT, the applicants must apply in writing to the Central Bank for approval. Whether an electronic message constitutes a “writing” is not clear. Nonetheless, we are of the opinion that as the law exists, electronic data exchange would not fulfill the “writing” requirement under this Law.</p> <p>The issue of providing the Central bank with information on the company, the manner of providing such information is not specified. Whether such information may be provided electronically is not clear.</p>		
	Article 11 Prohibited Businesses	Nothing in these prohibited businesses prevents licensed banks from carrying out e-banking services.		
	Article 20/b All information made available to any official of the Central Bank during the course of this inspection shall be considered secret and confidential;	The confidentiality of the information on the inspectors, but for the banks the confidentiality is kept according to banks internal procedures. The Draft Banking Law clearly imposes conditionality requirements on banks.		
Monitoring of Banks Businesses Law				
	Article 4 Upon submitting an application for licensing to carry out any bank businesses, the Minister may require the applicant to submit	The mode of submitting such information is not defined. Submission of such information may be carried out electronically.		

The Law	The Provision	Assessment	Comments	
	information as deemed sufficient to convince him that the licensing is in the public interest.			
	Article 10 Each bank must submit statements to the Central bank on the standard form designated for this purpose pertaining to its assets and requirements every month.	The manner of submitting such statements is not specified. Such statements may be transformed electronically. However, such statements may only be submitted on the standard form. Such form may be electronic nonetheless.		
The Representative Offices Regulations	Article 2 Banking Business means all banking services including the acceptance of deposits, and utilization of such funds and other resources of the licensed bank, totally or partially, for investment in loans or in any other type of investments permitted under the laws and regulations in force in the Kingdom.	Such definition may include e-banking services as well.		
	Article 3 /a 1-Foreign banks and financial companies may apply to the Bank for a representative Office license on the form annexed to this regulation. After the Banks approval of the application, representative Office shall be registered in the Kingdom in accordance with the Foreign Companies registration Law no 46 of the year 1975 or any other Law substituting it.	This provision entails two problems: 1. The application must be on the designated form. Nothing in the Law clearly states that such a form should be paper based. It may possible to submit the application on an electronic form containing the same information. 2. The requirement of registration with the MIT		

The Law	The Provision	Assessment	Comments	
		pursuant to the Companies Law may be an impediment as well. Since the registration requirements include certain requirements such as appearance before the Controller and signature requirements.		
	Article 4 A representative Office must not carry on any business in the Kingdom before license thereto and a document of appointment of the office manger in accordance with the provisions of this regulation is submitted to the Central Bank, provided that the headquarters of the representative Office shall be in the Capital Amman and that it is not entitled to open any branch in any other place in the Kingdom.	The requirement of document of appointment is not clear whether such a document may be electronic. What is meant by a “document”. Is it only paper based or can it include electronic messages as well.		
	Article 5 The Central bank may approve the application for licensing the Representative Office or subject the licensing to limitations and conditions as it deems fit or reject the application without being obliged to declare reasons behind its restrictions or rejection.	This provision empowers the Central bank with full discretion in licensing of Representative Offices. This may be an impediment for e-banking for lack of transparency in the licensing process.		
<i>The Securities Law</i>		The Securities Law is an example for approving electronic data as means of proof in the Jordanian legislation.		
	Article 24	This is a new legislation		

The Law	The Provision	Assessment	Comments	
	<p>a- Securities listed on the Bourse shall be traded through transactions between financial brokers, carried on the behalf of clients, and established through entries in the Bourse's record</p> <p>b- Unless otherwise proven, the entry records and the accounts maintained by the Bourse, whether manually or electronically, as well as any document issued by the Bourse shall constitute <i>prima facie</i> legal evidence of the trading mentioned therein on the date of the records, accounts or documents.</p>	<p>which adopted the electronic methods and may be used as an example for other legislation in case of introducing e-banking or e-commerce into the Jordanian legislation.</p>		
	<p>Article (30)</p> <p>a-Registration and transfer of ownership of securities traded on the Bourse and the price settlements of such securities between financial brokers shall be by means of entries in the Center's records.</p> <p>b- Unless otherwise proven, the entry records and the accounts maintained by the Center, whether manually or electronically, as well as any document issued by the Center shall constitute <i>prima facie</i> legal evidence of ownership, registration, and transfer of ownership of the securities mentioned therein and of the price settlements of such securities between financial brokers, on the</p>			

The Law	The Provision	Assessment	Comments	
	date of the records, accounts or documents.			
The Evidence Law		<p>The ultimate test for whether electronic data would constitute a legally binding transaction lays in whether such data would be admissible in a court of law.</p> <p>The Evidence Law is the major legislation in Jordan that sets out the rules for evidence including written evidence as means of proof.</p>		
	<p>Article 2 Means of proof under the Jordanian legislation are the following:</p> <ol style="list-style-type: none"> 1. Writing 2. Testimony 3. Presumptions 4. Inspection & Expertise 5. Declaration 6. Oath 	Writing is considered the basic means of proof under the Jordanian Legislation.	<p>There is nothing explicit in the Evidence Law that provides that writing means only "hand writing".</p> <p>Writing has generally been interpreted to include typing, printing, lithography and other means of representing or reproducing words in a visible form. The definition of writing has also been extended to include telex or fax for example Article 72 of the Securities Law. However, it seems that this flexible interpretation of the law does not extend to the signature always, which is generally understood as handwritten signature.</p>	
	<p>Article 5 The written evidences are:</p>	The securities to be taken as strong evidence it should be written and		

The Law	The Provision	Assessment	Comments	
	1- Official documents 2- Normal documents 3-Unsigned papers	stamped physically.		
	Article 6 1.Official documents are: a. The documents prepared by the official employees authorized to prepare such according to the law. such documents shall constitute a <i>prima facie</i> evidence unless otherwise proved to forged. b- Documents prepared by the authors thereof and certified by official employees authorized to certify such. Such documents shall constitute a <i>prima facie</i> evidence in terms of the date and signature affixed thereto.	What constitutes a document? Can an electronic message be considered as a document. And is it a “written document”. Documents issued by the Central Bank or any government entity is considered an official document. In order to be considered as such, it must fulfill the requirements of the Evidence Law, i.e., be in writing and signed.		
	Article 7 The content of the official document shall constitute a proof against all persons if prepared by an official employee in accordance with his jurisdiction or if prepared by authors thereof and signed before the official employee. Official documents can only be challenged on the basis of forgery only. No other challenges are permitted such as lack of capacity.	The Evidence Law does not specify the rules and procedures governing preparation of official documents. It refers to the specific applicable law of such matters. The Evidence Law does not specifically require that official documents must be signed by the official employee. However, the structure of the Evidence Law seems to imply that the evidentiary power of a written evidence lays in the “signature” rather than the “writing” itself. For example, Article 6/b accords documents prepared by the authors thereof and certified by official employees evidentiary power in		

The Law	The Provision	Assessment	Comments	
		<p>terms of the date and signature. This implies that such documents shall be signed.</p> <p>Although the Evidence Law does not specifically mention that official employees must sign any documents prepared by them, the applicable laws in most cases require the signature or a stamp as in the case of the Notary Public Law for example. The norm is that all official documents are signed by their authors.</p>		
	<p>Article 8</p> <p>1-If the original of the official document was available the written and photo copies of such which were issued by an official employee within his authority the copies shall have the same evidentiary power of the original to the extent that it matches the original..</p>	<p>Electronic data messages once printed out are by definition a “copy”. Would such messages have the same evidentiary power, if any, of the original message?</p>		
	<p>Article 9</p> <p>In case the original document does not exist, the first copy shall have the evidentiary power of the original if prepared by the official employee and its physical appearance does not indicate any alteration from the original. A copy of the first copy shall have the same evidentiary power of the first copy if prepared and authenticated by an official employee.</p>			
	<p>Article 10</p> <p>An ordinary document is defined as a document containing the signature of its author or his stamp or fingerprint and is not</p>	<p>This article indicates that an ordinary document must be in writing and must be signed in order to be considered as a written evidence.</p>		

The Law	The Provision	Assessment	Comments	
	<p>an official document.</p> <p>The content of an ordinary document constitutes an evidence against its authors unless it is proven that the writing, signature, stamp or fingerprint affixed thereto is forged.</p>	<p>What constitutes a “signature” is a key issue for transmission and creation of both ordinary documents and official documents.</p> <p>Would a electronic signature be admissible in a court of law?</p>		
	<p>Article 13</p> <p>Letters shall have the same evidentiary power of ordinary documents if they are signed by their authors.</p>	<p>Again, it seems that the Evidence Law accords evidentiary power to signature rather than the writing itself.</p>		
	<p>Article 19</p> <p>The clearance of any debt is not accepted unless the creditor confirms by hand writing.</p>			
	<p>Article 26</p> <p>In any civil case proof of accuracy of the organization of any contract or power of attorney or authorization or any written document organized out side the country may be proved by the declaration of the related parties or the official authentication of such from the concerned authorities in the kingdom or abroad.</p>	<p>Documents prepared outside the Kingdom may be considered a proof if approved by the parties as such or upon authentication of such by the competent authorities.</p>		
The Commercial code				
	<p>Article 51</p> <p>The commercial contracts does not have to be proved according to the Inclusive principles in the Civil Law</p> <p>And may be proved by all means of proof subject to what is provided in the special Laws.</p>	<p>Special Laws may provide the means for proof that are admissible in a court of Law. A legislation for e-signature and electronic data exchange may be introduced to deal with e-banking and e-commerce transactions.</p>		
	<p>Article 115</p> <p>The evidence of any</p>	<p>Again, is electronic data a “writing”.</p>		

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	<p>transaction concerning the deposit is proved by written documents</p> <p>Article 123/124 defines cheques and payment orders and stipulates that such shall be written documents signed by their authors.</p> <p>All endorsements must be signed and must be in writing as well.</p>	<p>Payment orders must be in writing and must be signed. This can impose an impediment to e-banking transactions.</p>		
<i>The Civil Code</i>				
	<p>Article 72 Means of proof are: Writing....</p> <p>Article 101 If the two contractors were not in the same place when they contracted, the time and place of the acceptance is the time of contracting unless agreed otherwise.</p>	<p>Writing is the basic means of proof.</p>		
	<p>Article 102 Contracting through phone or any other similar way shall be considered as if contracted between two persons not in the same place and is considered as if concluded between two persons on the same time.</p>	<p>Concluding contracts by means of electronic data exchange is allowed under this provision.</p>		
	<p>There are certain types of contracts that require certain conditions as a validity requirement such as Land sales and Vehicles sales which require the attendance of the parties before certain government entity. This may constitute an impediment for e-banking and e-commerce transactions.</p>			